

WHAT IS CLAIMED IS:

1. A quick attachment system using two hitch points where:

(a) the first hitch connection containing a guide to align and connect the implement hitch point to the corresponding hitch point on the receiver,

(b) a second hitch connection where the implement hitch point and the corresponding receiver hitch point are aligned by means of rotational, translational, or a combination motion of the implement and by the connection of the first hitch point.

2. A hydraulic means of providing motion to the implement to align the second hitch point.

3. A spring means of providing motion to the implement to align the second hitch point.

4. Any of various means of automatically coupling the hitch points when aligned including spring-loaded pins, and latches.

5. In a snowplow attachment system for quickly attaching a snowplow and snowplow frame to a vehicle, said system including a vehicle mounted frame attachment permanently secured to the vehicle frame, said vehicle mounted frame having a pair of lug plates joined by a

transfer frame member, each said lug plate having an arcuate hook slot and a latch pin aperture, said snowplow frame having a subframe and a vertically extending lift/light tower pivotally connected at its lower end by a horizontal pivot to the trailing end of said subframe, a hydraulic piston and cylinder assembly pivotally connected at its ends to (1) an upper end of said vertically extending lift/light tower and (2) a point on said subframe spaced forwardly of said horizontal pivot, a hydraulic pump on one of said subframe and vertically extending lift/light tower and connected to said hydraulic piston and cylinder, an electrical motor for driving said hydraulic pump, a transverse attachment bar for engaging said arcuate slot and being guided to the hook portion of said arcuate slot, and spring-bias latch pin members for engaging said latch pin apertures, respectively, the improvement comprising:

an electrical switch on said vertically extending lift tower for engaging said hydraulic pump motor and operate said hydraulic piston and cylinder to rotate said vertically extending lift/light tower about said horizontal pivot and cause said transverse attachment bar to enter said hook slot of said pair of lug plates, and

a pair of trip mechanisms for actuating said spring-bias latch pins to cause said latch pins to enter said latch pin apertures when said transverse attachment bar has engaged the hook portion of said slot.

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a. The attachment system defined in Claim ¹
including ~~a member~~ means to limit rotation of said lift/light tower
toward the vehicle and force alignment of latch pins with
said latch pin apertures.

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